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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,235	08/09/2000	Minoru Noguchi	P107348-00032	5055

4372 7590 01/14/2003

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EXAMINER

VIJAYAKUMAR, KALLAMBELLA M

ART UNIT	PAPER NUMBER
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1751

9

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/635,235

Applicant(s)

NOGUCHI ET AL.

Examiner

Kallambella Vijayakumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 05 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2 and 3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 and 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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*Detailed Action*

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- Acknowledge the Response dated November 05, 2002 to Office Action dated July 5, 2002 in paper no. 5, and amendment to Claim-3.
- Claims 2-3 are currently pending.
- The interview with Bala Sundararajan on January 09, 2003 to discuss the amendments to the claims to condition the application for allowance did not result in any amendment.
- The current action rejecting the following claims are necessitated as the reasons for allowance by the applicants is not persuasive and accordingly this action is made Final.

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*Claim Objections*

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- The objection to Claim-3 is withdrawn based on the amendment to the claim correcting the informalities.

*Claim Rejections - 35 USC § 102*

*Claim Rejections - 35 USC § 103*

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Claims 2-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kampe et al (US Patent #4,602,426).

The rejections for the Claims 2-3 are maintained for the reasons of rejecting in earlier office action dated July 5, 2002, wide Paper No. 5.

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The arguments presented by the applicants in response to the office action (Paper-5) and along with the Amendment have been given careful due consideration and found to be non-persuasive and the office respectfully disagree with them.

Applicants argue that Kampe et al does not teach that the concentration of the conductive material in a surface bonded to the current collector is higher than the concentration of the conductive material in the internal portion of the electrode. Kampe's electrochemically active material is based on activated carbon, wherein the current collector should be in contact with the layer containing highest concentration of electrochemically active material (Col-4, Lines: 52-55). The electrode is prepared by hot pressing of the layers of materials with varying concentration of electrochemically active materials, resulting in a progressive variation in the average concentration between the adjacent layers, with a smooth transition between the layers is disclosed by Kampe et al (Col-4, Lines: 1-64). Applicants further argue that Kampe shows the gradient through the thickness of the electrode and it is related to a gas diffusion electrode. Kampe et al disclose a controllably graded electrode, its advantages and the use of granular materials or fibers to improve the electrode structure and performance (Col-5, Lines: 3-15, Col-6, lines: 8-12), and it would be in purview of a skilled artisan could optionally choose carbon fibers in the composition. Further, instant claims by the applicants have no specific gradient in concentration of the conductive material through the thickness as the limitation. The use of phrase "...for an electric double-layer capacitor,..." in the claims have not been treated with patentability for the reasons given in paper no.5. The advantages claimed by the inventors are not the limitations of the claims.

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Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al (US patent #5,450,279) in view of Kampe et al (US Patent #4,602,426).

The arguments presented by the applicants in response to the office action (Paper-5) and along with the Amendment have been given careful due consideration and found to be non-persuasive and the office respectfully disagree with them.

Applicants argue that Yoshida does not teach the use of active material and conductive material, while Yoshida discloses the use of activated carbon in a powder or a fiber state. Further, the active material and conductive materials of the applicants are essentially fibers of activated carbon and powders of graphite respectively, except for the used terminology. Furthermore, Yoshida's materials combined with Kampe's electrode concept and process of fabrication would lead to the electrode of the applicants, and both the disclosures are in main area of electrodes.

### *Conclusion*

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 703-305-4931. The examiner can normally be reached on M-Th, 07:00 - 15.30 hrs, Fri: 05.30-14.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 703-308-4708. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

kmv

January 10, 2003

  
**Mark Kopec**  
**Primary Examiner**